

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Steele et al.

Title:

WAFER INSPECTION SYSTEM

Appl. No.:

10/771,628

Filing Date: 02/03/2004

Examiner:

Art Unit:

2812

CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below. (Printed Na

INFORMATION DISCLOSURE STATEMENT **UNDER 37 CFR §1.56**

Commissioner for Patents P.O. Box_1450 Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56. A copy of each listed document, except as noted below, is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The USPTO has waived the requirement under 37 CFR 1.98(a)(2)(i) to submit copies of U.S. patents and U.S. patent application publications when citing and submitting an Information Disclosure Statements in a patent application filed after June 30, 2003 and in an international application that has entered the national stage under 37 USC §371 after June 30, 2003. Accordingly, copies of these types of documents are not being supplied in connection with this application. Reference is being made to OG Notice dated August 5, 2003, Information Disclosure Statements May Be Filed Without Copies of U.S. Patents and Published Applications in Patent Applications filed after June 30, 2003.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), before the mailing date of the first Office Action on the merits, and within three (3) months of the mailing date of the foreign search report.

RELEVANCE OF EACH DOCUMENT

Cite Nos. A61, and A64-A72 listed on the attached PTO/SB/08 were cited as being relevant during the prosecution of the corresponding International application. A copy of the International Search Report is attached setting forth the portion of each document considered relevant by the examiner. An English-language counterpart of the foreign-language document has not been provided, but an English-language Abstract accompanies such document. The absence of a translation or an English-language counterpart document does not relieve the PTO from its duty to consider any submitted document (37 CFR §1.98 and MPEP§609).

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

STATEMENT

The undersigned hereby states in accordance with 37 CFR §1.97(e)(1) Cite Nos. A61, and A64-A72 listed on the attached PTO/SB/08 were first cited in any communication from a foreign patent office in a counterpart foreign application not more than three (3) months prior to filing of this Statement.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1450. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1450.

Respectfully submitted,

By M-为.()

Date Uch 22 2004

FOLEY & LARDNER LLP Customer Number: 27433

Telephone: (312) 832-4586

Facsimile: (312) 832-4700

Michael D. Rechtin Attorney for Applicant Registration No. 30,128

MODIFIED PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control

Under the Paperwork Reduction A

Sheet

Specificate for form 1449B/PTO

3

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Date Submitted: October 22, 2004

(use as many sheets as necessary)

Complete if Known				
Application Number	10/771,628	<u> </u>		
Filing Date	February 3, 2004			
First Named Inventor	M. Brandon Steele			
Group Art Unit	2812			
Examiner Name				
Attorney Docket Number	023228-0109			

		U.S. Patent D	ocument		Date of Publication of	Pages, Columns, Lines,
Examiner Initials*	Cite No. ¹	Number	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear
	A1	2002/0140564	A1	Danyluk et al.	10-03-2002	
	A2	2002/0186036	A1	Smith	12-12-2002	
	A3	2003/0129776	A1	Eom et al.	07-10-2003	
	A4	2003/0175945	A1	Thompson et al.	09-18-2003	
	A5	2004/0029131	A1	Thompson et al.	02-12-2004	
	A6	2004/0057497	A1	Lagowski et al.	03-25-2004	
	A7	4,166,974	A1	Vermeers	09-04-1979	
	A8	4,295,092	A1	Okamura	10-13-1981	
	A9	4,481,616	A1	Matey	11-06-1984	
	A10	4,973,910	A1	Wilson	11-27-1990	
	A11	5,087,533	A1	Brown	02-11-1992	
	A12	5,136,247	A1	Hansen	08-04-1992	
	A13	5,214,389	A1	Cao et al.	05-25-1993	
	A14	5,217,907	A1	Bulucea et al.	06-08-1993	
	A15	5,218,362	A1	Mayes et al.	06-08-1993	
	A16	5,270,664	A1	McMurtry et al.	12-14-1993	
	A17	5,272,443	A1	Winchip et al.	12-21-1993	
	A18	5,278,407	A1	Ikebe et al.	01-11-1994	
	A19	5,293,131	A1	Semones et al.	03-08-1994	
	A20	5,315,259	A1	Jostlein	05-24-1994	
	A21	5,369,370	A1	Stratmann et al.	11-29-1994	
	A22	5,381,101	A1	Bloom et al.	01-10-1995	
	A23	5,460,684	A1	Saeki et al.	10-24-1995	
	A24	5,517,123	A1	Zhao et al.	05-1996	
	A25	5,583,443	A1	McMurtry et al.	12-18-1996	
	A26	5,723,980	A1	Haase et al.	03-03-1998	
	A27	5,723,981	A1	Hellemans et al.	03-03-1998	
	A28	5,773,989	A1	Edelman et al.	06-30-1998	
	A29	5,974,869	A1	Danyluk et al.	11-02-1999	
	A30	5,977,788	A1	Lagowski	11-02-1999	
	A31	6,011,404	A1	Ma et al.	01-04-2000	
	A32	6,037,797	A1	Lagowski et al.	03-14-2000	
	A33	6,091,248	A1	Hellemans et al.	07-19-2000	
	A34	6,094,971	A1	Edwards et al.	08-01-2000	
	A35	6,097,196	A1	Verukuil et al.	08-01-2000	
	A36	6,114,865	A1	Lagowski et al.	09-05-2000	
	A37	6,127,289	A1	Debusk	10-03-2000	
	A38	6,139,759	A1	Doezema et al.	10-31-2000	

Examiner Signature	Date Considered	
		_

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

¹ Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

	Substitute for form	1449B/	PTO		Complete if Known	
	INFORMATION D	ISCLO	SURE	Application Number	10/771,628	
!	STATEMENT BY	APPLI	CANT	Filing Date	February 3, 2004	
	Date Submitted: Oc	tohor 2	2 2004	First Named Inventor	M. Brandon Steele	
•	Date Submitted. Oc	lobei z	2, 2004	Group Art Unit	2812	
(use as many sheets as necessary)				Examiner Name		
Sheet	2	of	3	Attorney Docket Number	023228-0109	

			U.S. PATENT DOCUME	NTS	
	U.S. Patent Do	ocument			
A39	6,198,300		Doezema et al.	03-06-2001	
A40	6,201,401		Hellemans et al.	03-13-2001	
A41	6,232,134		Farber et al.	05-15-2001	
A42	6,255,128		Chacon et al.	07-03-2001	
A43	6,265,890		Chacon et al.	07-24-2001	
A44	6,517,669		Chapman	02-11-2003	
A45	6,538,462		Lagowski et al.	03-25-2003	
A46	6,597,193		Lagowski et al.	07-22-2003	
A47	6,664,546		McCord et al.	12-16-2003	
A48	6,664,800		Chacon et al.	12-16-2003	
A49	6,680,621		Savtchouk et al.	01-20-2004	
A50	6,717,413	-	Danyluk et al.	04-06-2004	
A51	6,011,404	A1	Ma et al.	01-04-2000	
A52	6,520,839	A1	Gonzalez-Martin et al.	02-18-2003	
A53	6,551,972	B1	Lei et al.	04-22-2003	
A54	2003/0052374	A1	Lee et al.	03-20-2003	
A55	2003/0139838	A1	Marella	07-24-2003	
A56	2003/0164942	A1	Take	09-04-2003	
A57	2004/0058620	A1	Gotkis et al.	03-25-2004	
A58	2004/0105093	A1	Hamamatsu et al.	06-03-2004	
A59	2004/0134515	A1	Castrucci	07-15-2004	
A60	6,717,413		Danyluk et al.	04-06-2004	

				F	OREIGN PATENT DOCUMEN	ITS		
Examiner Initials*	Cite No. ¹	F Office	oreign Patent E ³ Number ⁴	ocument Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
	A61	WO	01/90730	A2	Sensorchem Int'l Corp.	11-29-2001	p. 17, II. 15-30; figs. 10A-B	
	A62	DD	297509	A5	Kloeden R.	01-09-1992		Α

Examiner		Date	
Signature		Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

¹ Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

	Substitute for form	1449B/	PTO PTO		Complete if Known	
	INFORMATION D	ISCLO	SURE	Application Number	10/771,628	
	STATEMENT BY	APPLI	CANT	Filing Date	February 3, 2004	
	Date Submitted: Oc	tobor 2	2 2004	First Named Inventor	M. Brandon Steele	
	Date Submitted. Od	lober 2	2, 2004	Group Art Unit	2812	
	(use as many sheets	s as ne	cessary)	Examiner Name		
Sheet	3	of	3	Attorney Docket Number	023228-0109	•

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	A63	B SCRUTON and B.H. BLOTT, A High Resolution Probe for Scanning Electrostatic Potential Profiles Across Surfaces; Journal of Physics E: Scientific Instruments (May 1973), pp. 472-474; Vol. 6, No. 5, Printed in Great Britain.	
	A64	YANO D ET AL: "Nonvibrating contact potential difference probe measurement of a nanometer-scale lubricant on a hard disk", Journal of Tribology, American Society of Mechanical Engineers, New York, NY, US; Vol. 121, No. 4, October 1999, pages 980-983, XP008031092, ISSN: 0742-4787 (pp. 980-981, fig. 4, first ref. on p. 983).	
	A65	CASTALDINI A ET AL: "Surface analyses of polycrystalline and Cz-Si wafers", Solar Energy Materials and Solar Cells, Elsevier Science Publishers, Amsterdam, NL; Vol. 72, No. 1-4, April 2002, pp. 425-432, XP004339790, ISSN: 0927-0248 (whole document).	
	A66	KORACH C S ET AL: "Measurement of perfluoropolyether lubricant thickness on a magnetic disk surface", Applied Physics Letters, American Institute of Physics, New York, NY, US; Vol. 79, No. 5, July 30, 2001, pp. 698-700, XP012029958, ISSN: 0003-6951 (p. 699, left column; fig. 2).	
	A67	YANG Y ET AL: "Kelvin probe study on the perfluoropolyether film on metals", Tribology Letters, 2001, Kluwer Academic/Plenum Publishers, USA, vol. 10, no. 4, pages 211-216, XP009035197, ISSN: 1023-8883 (page 211-page 212).	
	A68	CASTALDINI A ET AL: "Scanning Kelvin probe and surface photovoltage analysis of multicrystalline silicon", Materials Science and Engineering B., Elsevier Sequoia, Lausanne, CH; Vol. 91-92, April 30, 2002, pp. 234-238, XP004355534, ISSN: 0921-5107 (chapters "2.2 Scanning Kelvin probe: and "4.2 Scanning Kelvin probe analyses").	
	A69	LAGEL B ET AL: "A novel detection system for defects and chemical contamination in semiconductors based upon the scanning Kelvin probe", 14 th International Vacuum Congress (IVC-14). 10 th International Conference on Solid Surfaces (ICS-10). 5 th International Conference on Nanometre-Scale Science and Technology (NANO-5). 10 th International Conference on Quantitative Surface Analysis; Vol. 433-435, pp. 622-626, XP002292441, Surface Science, August 2, 1999, Elsevier, NL, ISSN: 003906028 (whole document).	
	A70	REN J ET AL: "Scanning Kelvin Microscope: a new method for surface investigations" 8. Arbeitstatgung Angewandte Oberflachenanalytik 'AOFA 8' ('Applied Surface Analysis'), Kaiserslautern, DE, September 5-8, 1994; Vol. 353, No. 3-4, pp. 303-306, XP009035181, Fresenius' Journal of Analytical Chemistry, October 1995, Springer-Verlag, DE, ISSN: 0937-0633 (p. 304, right column; fig. 1).	
	A71	BAUMGARTNER H ET AL: "Micro Kelvin probe for local work-function measurements", Review of Scientific Instruments, May 1988, USA; Vol. 59, No. 5, pp. 802-805, XP0022922442, ISSN: 0034-6748 (abstract; fig. 4, chapter "V. Results").	
	A72	DANYLUK S: "Non-vibrating contact potential imaging for semiconductor fabrication", Semicon West 2003, 'Online!, July 14, 2003, pp. 1-15, XP002292443, retrieved from the internet: ,URL:http://dom.semi.org/web/wFiles.nsf/Lookup/TIS18_QceptTechnologiesInc/\$file/TIS18%20QceptTechnologiesInc.Alternate.pdf. 'retrieved on August 13, 2004 (whole document).	

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

¹ Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.